

DSC-R402HR

Low-Noise High-Responsivity 10 Gbits/s Optical Receiver for SONET

Description:

This optical photoreceiver combines very-high diode responsivity with a low-noise, 20 dB gain TIA in a small, reliable package. The 8 GHz bandwidth is ideal for SONET designs with Non-Return-to-Zero (NRZ) formats. The amplifier provides conversion gain of 450 V/W and low electrical return loss, for simple interfacing to the next stage, while saving valuable board space.

Features:

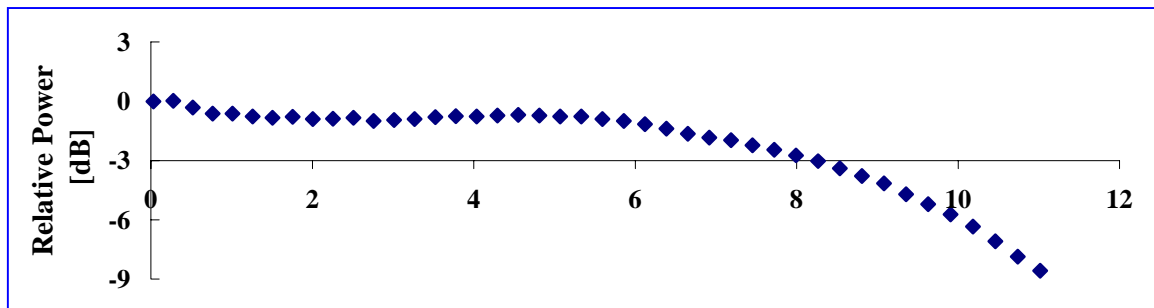
- **High Responsivity of 0.9 A/W @ 1550 nm**
- **Low-Noise, High-Gain and High Responsivity**
- **Low Group Delays**
- **Small-Footprint Miniature Package**
- **Hermetically Sealed and Built to GR-468 Standards**

Applications:

- **Digital Receiver for OC-192/SDH-64 Telecom and 10 Gbits/s Datacom**



Typical Frequency Response Curve



Specifications:

Parameter	Min.	Typ.	Max.	Units
Responsivity @ 1.55um of the PIN diode	0.9	0.95		A/W
Conversion Gain @ 1.55um	450	475		V/W
Power Gain of Amp	15	20		dB
Equiv. Transimpedance		500		Ω
Gain Flatness		+/-0.75		dB
Bandwidth (1.55 um)	7	8		GHz
Lower Limit (10 KHz option)	30			KHz
Noise	12	15		pA/ $\sqrt{\text{Hz}}$
Bias Voltage Amp		+8	+8.4	V
Bias Voltage PIN		+12	+16	V
Power Dissipation		800		mW
Electrical Return Loss	10	15		dB
Optical Return Loss	30	35		dB
Wavelength response	0.8		1.6	μm

Options:

Optical Input:

Pigtail:	1 m Single or Multi-Mode fiber
Fiber buffer:	3 mm std. 0.9 mm buffer dia.
Connector:	FC, SC, ST, others by request
Finish:	PC, UPC, APC

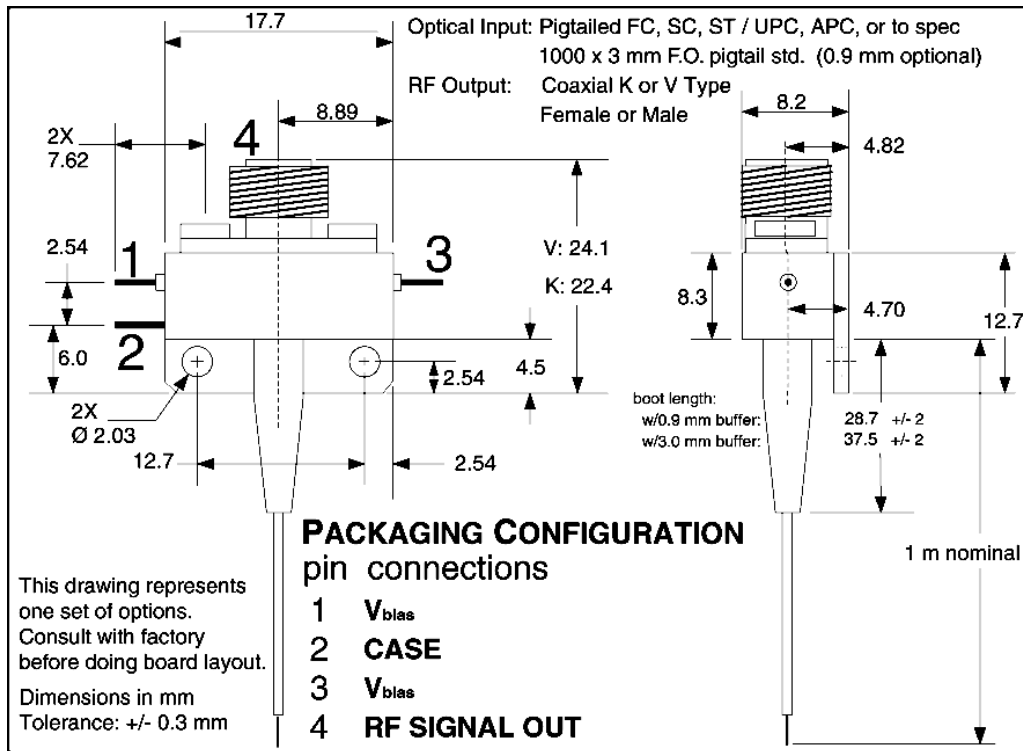
RF Output:

Connector:	K, female std., male option
Coupling:	30KHz std., opt.: DC or 10 KHz

R402HR-a - 1100

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PACKAGING CONFIGURATION for R402HR



Specifications are subject to change without notice.

PIN1: +14 V
PIN 3: + 8 V